

Application/Control Number: 10/713,329

Art Unit: 2800

Clmpto

051606

PY

Page 2

2/27/6

1. (Original) A method of forming a structure, comprising the steps of:  
ink-jet printing a first layer;  
ink-jet printing a first sacrificial layer above at least part of the first layer;  
ink-jet printing a second layer above at least part of the first sacrificial layer; and  
removing the first sacrificial layer to create at least one first open space within the structure.
2. (Original) The method of claim 1 further comprising the step of ink-jet printing a first electrode layer prior to ink-jet printing the first sacrificial layer, wherein the first sacrificial layer extends above at least part of the first electrode layer.
3. (Original) The method of claim 2 further comprising the step of ink-jet printing a first dielectric layer above the first electrode layer prior to ink-jet printing the first sacrificial layer, wherein the first sacrificial layer extends above at least part of the first dielectric layer.
4. (Original) The method of claim 3 further comprising the step of ink-jet printing a second dielectric layer above the first sacrificial layer prior to ink-jet printing the

second layer, wherein the second dielectric layer extends above at least part of the first sacrificial layer.

5. (Original) The method of claim 4 further comprising the step of ink-jet printing a second electrode layer above the second dielectric layer prior to ink-jet printing the second layer, wherein the second electrode layer extends above at least part of the second dielectric layer.

6. (Original) The method of claim 1 wherein the first layer and the second layer are flexible.

7. (Original) The method of claim 1 wherein the first sacrificial layer is a patterned layer having first sacrificial layer regions, wherein the first sacrificial layer regions are spaced by gaps and the first layer is secured to the second layer in the gaps.

8. (Original) The method of claim 5 further comprising the steps of:  
ink-jet printing a second sacrificial layer above at least part of the second layer, ink-jet printing a third layer above at least part of the second sacrificial layer; and  
removing the second sacrificial layer to create at least one second open space within the structure.

9. (Original) The method of claim 8 further comprising the step of ink-jet printing a third electrode layer prior to ink-jet printing the second sacrificial layer, wherein the second sacrificial layer extends above at least part of the third electrode layer.

10. (Original) The method of claim 9 further comprising the step of ink-jet printing a third dielectric layer above the third electrode layer prior to ink-jet printing the second sacrificial layer, wherein the second sacrificial layer extends above at least part of the third dielectric layer.

11. (Original) The method of claim 10 further comprising the step of ink-jet printing a fourth dielectric layer above the second sacrificial layer prior to ink-jet printing the third layer, wherein the fourth dielectric layer extends above at least part of the second sacrificial layer.

12. (Original) The method of claim 11 further comprising the step of ink-jet printing a fourth electrode layer above the fourth dielectric layer prior to ink-jet printing the third layer, wherein the fourth electrode layer extends above at least part of the fourth dielectric layer.

13. (Original) The method of claim 8 wherein the third layer is flexible.

14. (Original) The method of claim 8 wherein the second sacrificial layer is a

Art Unit: 2800

patterned layer having second sacrificial layer regions, wherein the second sacrificial layer regions are spaced by gaps and the third layer is secured to the second layer in the gaps.

15. (Original) The method of claim 14 wherein the gaps between the second sacrificial layer regions are offset relative to the gaps in the first sacrificial layer regions.

16. (Original) The method of claim 8 wherein the first sacrificial layer and the second sacrificial layer are removed at the same time.

17. (Original) The method of claim 16 further comprising the step of providing through holes that intersect the first sacrificial layer and the second sacrificial layer prior to removing the first sacrificial layer and the second sacrificial layer.

18. (Original) The method of claim 1 wherein the structure is an electrostatic actuator.

34. (New) A method of forming a structure, comprising the steps of:

ink-jet printing a first flexible layer of polymeric material;

ink-jet printing a first sacrificial layer above at least part of the first flexible layer;

ink-jet printing a second flexible layer of polymeric material above at least part of the first sacrificial layer; and

removing the first sacrificial layer to create at least one open space or cavity between said first and second flexible layers.

35. (New) A method of forming a structure, comprising the steps of:

ink-jet printing a first device layer;

ink-jet printing a first electrode layer;

ink-jet printing a first dielectric layer;

ink-jet printing a first sacrificial layer above at least part of the first dielectric layer;

ink-jet printing a second device layer above at least part of the first sacrificial layer; and

removing the first sacrificial layer to create at least one open space within the structure.